

STATE OF NORTH DAKOTA
Information Technology Department
600 East Boulevard – Dept. 112
Bismarck, ND 58505-0100



Request For Proposals

RFP 112-0405

ADDENDUM #2

Date of Issue: 29 April 2004

Public Safety Mobile Radio Communications:

State of North Dakota Information Technology Department is soliciting proposals for the replacement of the statewide public safety radio communications system with state-of-the-art equipment utilizing Project 25 standards.

Bidders are not required to return this form

Jerry Fossum, Director of Telecommunications
Information Technology Department
Procurement Officer

ADDENDUM #2

Following are the clarifications and answers to the questions that were presented at the Pre-proposal Conference on Thursday, April 22, 2004

SECTION ONE

- 1.04 Request for an extension to the schedule. Change of Schedule of Events was provided in addendum #1.
- 1.06 When referring to the “purchasing agency” that is to mean The State of North Dakota.

SECTION TWO

- 2.02 The applicable 5-digit NIGP Commodity Code is **725-78**
- 2.05 ***Does a vendor need to supply a primary bid and an alternate or just a primary bid?***

A primary bid would not be required to submit an alternate proposal.

- 2.11 Section stands as published.

SECTION FOUR

- 4.01 Page 27, Paragraph 1

System interoperability currently available consists of the ability of agencies other than those regularly assigned to the system to have access to the system through access to the VHF radio channels using predefined protocols.

It is intended that this level of interoperability will be maintained with the new system.

If the proposed system does not allow for this type of interoperability, the bidder must propose all equipment and sub-systems required to allow for access to the system from VHF field equipment using analog FM or Project 25 standards throughout the coverage area.

- 4.02
The State will provide current output power and antenna height information from each site to allow the development of a propagation

prediction model for the existing system.

See exhibit at end of this document.

4.02 *Are any future sites or additional sites required to fill in coverage? Are there any base assumptions on what should be looked at in terms of additional sites?*

The vendors are encouraged to choose additional antenna sites that will be most cost effective for the State over the life of the system.

4.02

The State clarifies that the "Infrastructure" which will be replaced, as part of this procurement is the specific equipment related to the Radio System Transmitters and associated hardware. Other site infrastructure, such as, towers, generators, buildings, fences, roads, etc. are not expected to be included in the bidder's proposal. The only exception to this would be where the bidder requires the replacement of a particular item to provide for installation or operation of their proposed system. i.e. Insufficient building space or generator capacity.

4.03 *Some tables and exhibits provided in the RFP do not include the Wales radio site?*

At the Wales radio site, the antenna is mounted on the elevator structure at about the 100' level. DOT is leasing the site from the elevator owner and it is being used for DOT only.

4.03 The system description indicates that telephone interconnect function is available on the DOT channel at each site. This functionality must be maintained in the proposed system.

SECTION FIVE

5.01 *Even though alternate proposals will be accepted, there is a lot of language trying to stay with the existing system coverage and with the existing operational features?*

The desire of the State is to be provided with a system that meets the functional requirements. Functional requirements are best described by the systems that are in use.

5.03 The State clarifies that all Highway Patrol vehicle installation shall be conducted in the Bismarck area, and all DOT vehicle installations will be

conducted at the local DOT district office.

After the award the Highway Patrol will work with the vendor on determining a shop location for installing mobile equipment in the Bismarck area.

DOT locations listed below:

Bismarck District
218 Airport Rd.
Bismarck ND 58504-6003

Dickinson District
1700 3rd Ave. West Ste. 101
Dickinson ND 58601-3009

Valley City District
1524 8th Ave SW
Valley City ND 58072-4200

Grand Forks District
1951 N. Washington
PO Box 13077
Grand Forks ND 58208-3077

Devils Lake District
316 S 6th St.
PO Box 817
Devils Lake ND 58301-3628

Williston District
605 Dakota Parkway W
PO Box 698
Williston ND 58802-0698

Minot District
1305 Hwy 2 Bypass E
Minot ND 58701-7922

Fargo District
503 38th St. S
Fargo ND 58103-1198

- 5.07 The term “of similar scope” is intended to mean statewide public safety radio systems. The state is interested in understanding the bidder’s level of experience with regard to;

- 1) Public safety radio systems,
- 2) statewide and/or statewide scale systems,
- 3) State government customers.

This experience may be demonstrated through a combination of successful system implementations other than two (2) statewide, public safety radio communications systems.

5.09 ***Are there special permits or licenses to put in a radio system?***

The State does not know of any specific licensing or requirement, which could not be met by the bidders.

The Secretary of State does require that any subcontractors must be registered with the state.

5.13 ***What is the clarification on the number of stations that are needed for the network?***

The number of stations needed would be in the scope of the vendors design.

Are there any sites that have other equipment that were not seen at the sites visited that would need additional filtering?

The bidders shall state their assumptions as to the requirements for additional RF filter equipment to protect the system from interference from co-located and nearby radio systems and/or to protect co-located and nearby radio systems from interference from the proposed system.

The site grounding and bonding shall be equivalent to that which is routinely proposed by the bidder for new public safety radio site installations. The bidder shall provide a copy of their internal standards and procedures or other industry standards that are proposed.

The bidder must list the cost of this work as a separate line item in the cost proposal.

5.13.1.6

Will tower safety drop lines be installed?

The bidder shall propose, as an option, any permanent improvements to the towers that are required to allow the proposed system to be installed in a safe and legal manor.

The bidder shall state in their proposal their assumptions as to the simultaneous mounting of the existing antenna system and the new antenna system; or the removal of the existing antenna equipment prior to the mounting of the new antenna equipment.

5.13.1.7

Do all of the 40 sites need to be tested?

The bidder may propose conducting portions of the acceptance plan concurrent with site installation. i.e. visual inspection, physical configuration audit and other documentation.

Page 61 Dispatch Console and Control Interface Equipment

Do you require that emergencies and unit ID's appear at the console operator positions?

Functionally beyond what exists today should be quoted as an option, per the paragraph on lines 3-5 page 62.

Page 63 Paging and/or EAS system equipment

Clarification on the term EAS.

It is the Emergency Alert System. Currently, the State's channel one is used and the tone of voice paging method to send out Amber Alerts as part of the EAS system.

Page 64 Field Radio Equipment (Subscriber Equipment)

Is subscriber equipment supposed to be P25 equipment?

Yes, it has to be compatible with the proposed system.

5.13.1.16, Page 65

Can we figure half-inch line to the control station LDF line, around 100 feet and one-outset wall penetrations?

Control station equipment should be proposed with 100 ft of transmission line appropriate for the application. The antenna line installation should include the cost of penetrating one exterior wall.

SECTION SIX

6.04 Correction: The words "State's project schedule" on the last line of page 78 should be replaced with "bidder's proposed project schedule".

6.06 ***The State's project goals that as it is referenced on page 28, what is the long term project goal?***

It should read project objectives. It should be referred to Section 4.01 as applies to the delivering system.

Does it cover testing?

It would cover the testing.

Clarification:

The bidder shall include with their proposal detailed system coverage maps for the existing system generated using the parameters and methods as the proposed system predictions. The bidder shall use these coverage maps of the existing system as the basis for the minimum coverage required for the proposed system. Both the existing system and proposed system coverage maps shall indicate 95% area reliability to a standard vehicular mounted mobile unit. "Talk out" and "Talk Back" coverage maps for both the existing and proposed system shall be provided.

Mobile coverage maps shall assume a standard passenger vehicle mounted mobile unit of the type proposed.

Portable coverage maps shall assume a standard portable unit of the type proposed, with "Talk Out" coverage assumes at the hip level, and "Talk Back" coverage assumed at the head level.

6.10.1.1 Page 87

Coverage maps provided for the proposed system shall represent the bidder's guarantee of radio coverage within the parameters indicated on the map.

6.10.1.2 Page 87

How many maps will be needed? There seems that there would be a large amount. How many maps are expected?

Individual "Talk out" and "Talk Back" coverage maps will be provided for 95% area reliability to a standard vehicular mounted mobile unit from each proposed site.

Individual "Round Trip" or "Worst Case" coverage maps will be provided for 90% area reliability to a standard vehicular mounted mobile unit from each proposed site.

Individual "Talk out" and "Talk Back" coverage maps will be provided for 90% area reliability to a standard vehicular mounted mobile unit from each two (2) sites, Bismarck and Dickinson.

Individual "Talk out" and "Talk Back" coverage maps will be provided for 95% area reliability to a handheld portable unit from each two (2) sites, Bismarck and Dickinson.

Individual “Talk out” and “Talk Back” coverage maps will be provided for 90% area reliability to a handheld portable unit from each two (2) sites, Bismarck and Dickinson.

Where both “Talk out” and “Talk Back” coverage maps are required to be provided for the same site, they may be superimposed on the same image.

6.10.1.3 Page 88

A composite site “Talk out” coverage map will be provided for 95% area reliability to a standard vehicular mounted mobile unit from each proposed site.

A composite site “Talk Back” coverage map will be provided for 95% area reliability to a standard vehicular mounted mobile unit from each proposed site.

A composite site “Round Trip” or “Worst Case” coverage maps will be provided for 90% area reliability to a standard vehicular mounted mobile unit from each proposed site.

A composite site “Round Trip” or “Worst Case” coverage map will be provided for 95% area reliability to a handheld portable unit from each proposed site.

A composite site “Round Trip” or “Worst Case” coverage map will be provided for 90% area reliability to a handheld portable unit from each proposed site.

Where “Talk out” and “Talk Back” coverage maps are required to be provided for the same site, they may be superimposed on the same image.

Where both 90% and 95% “Round Trip” or “Worst Case” coverage maps are required to be provided, they may be superimposed on the same image.

Section 6, Page 89

Clarification:

Will costs need to be detailed out on a per site and per channel basis. Installation, Programming, Warranty and Maintenance Costs?

Was there talk on the ongoing maintenance of the equipment that is being installed and the training of new personnel to do that?

In Section 5.20 specifies the items included for maintenance. On page 89 under Installation, Programming, Warranty and Maintenance Costs, all costs should be included in the proposal.

ADDITIONS TO SECTION SIX

Clarification:

(Note: The following requirements exist in Section 5. Their placement in Section 6 is to clarify the level of detail that must be delivered as part of the proposal.)

6A1

The bidder must include in the proposal a detailed narrative of the proposed "Continuity of Operations" plan as described in Section 5.14.

6A2

The bidder must include in the proposal a detailed description of the product and system warranty offered as part of their proposal and details any differences from their standard product and system warranty. The bidder shall state their warranty with regard to radio system coverage.

(Note: The following requirements exist in Section 5. Their placement in Section 6 is to clarify the fact that they must be delivered as part of the proposal.)

6A3

The bidder shall include with their proposal a proposed system test procedure and a management plan for the execution of the system test procedure. The test plan shall include, but not be limited to, the tests mentioned elsewhere in this RFP covering each major type of equipment and/or software as a separate test and shall include all RFP mandated features and functions of each type of equipment, a list of tests to be performed and how these tests will be administered. Bidders must provide comprehensive narrative describing the process that will be used to resolve any discrepancies discovered during the execution of the Acceptance Test Plan.

6A4

The bidder shall include with their proposal a proposed system coverage test procedure and a management plan for the execution of the system coverage test procedure. The test procedure will indicate the methodology used to select test locations and the methodology used to

evaluate the signal and audio quality at each location. The coverage test plan shall include tests demonstrating the coverage and signal reliability from each base station radio site and each radio channel specified in the bidder's proposal. The plan shall also incorporate a system coverage test, which will demonstrate the composite coverage of the system. It shall include proof of performance of all areas currently provided radio coverage by the existing system including both talk-out and talk-in coverage from mobile and portable radios. It is expected that this coverage test plan will include a coverage survey of the existing system as verification of the coverage area and reliability, which the proposed system must meet or exceed.

6A5

The bidder shall list any spare parts that the State is required to purchase for the system. The cost of those parts must be detailed in the cost proposal, and the total cost included in the system cost. The bidder shall recommend a complement of optional spare parts for the system and provide detailed pricing.

6A6

The bidder must submit a detailed maintenance plan, which includes a list of the bidder's maintenance facilities or any subcontractor's arrangements for maintenance facilities within the State.

6A7

The bidder shall provide a detailed description of the training program in their proposal. The bidder shall detail the costs of the training program in the cost proposal, and include the recommended training in the proposal total cost.

SECTION SEVEN

REPLACE SECTION SEVEN IN IT'S ENTIRETY WITH THE NEW SECTION SEVEN LISTED BELOW.

SECTION SEVEN

EVALUATION CRITERIA AND CONTRACTOR SELECTION

**THE TOTAL NUMBER OF POINTS USED
TO SCORE THIS CONTRACT IS 100**

7.01 Project Understanding and Management

Thirty Percent (30%) of the total possible evaluation points will be assigned to this criterion.

Included in this evaluation will be the bidder's response to the;

- Understanding of the Project
- Methodology Used for the Project
- Management Plan for the Project
- Quality Assurance Plan for the Project

7.02 Experience and Qualifications

Ten Percent (10%) of the total possible points will be assigned to this criterion. If the RFP required a minimum amount of experience or qualifications, no points will be awarded for meeting the minimum. Points will be awarded for experience and qualifications that exceed the stated minimums.

7.03 System Design, Functionality, and Capabilities

Thirty Percent (30%) of the total possible evaluation points will be assigned to this criterion.

Included in this evaluation will be the bidder's response to the;

- System Description (Section 6.10 in its entirety)
- Coverage Prediction and Guaranties
- Specification Compliance

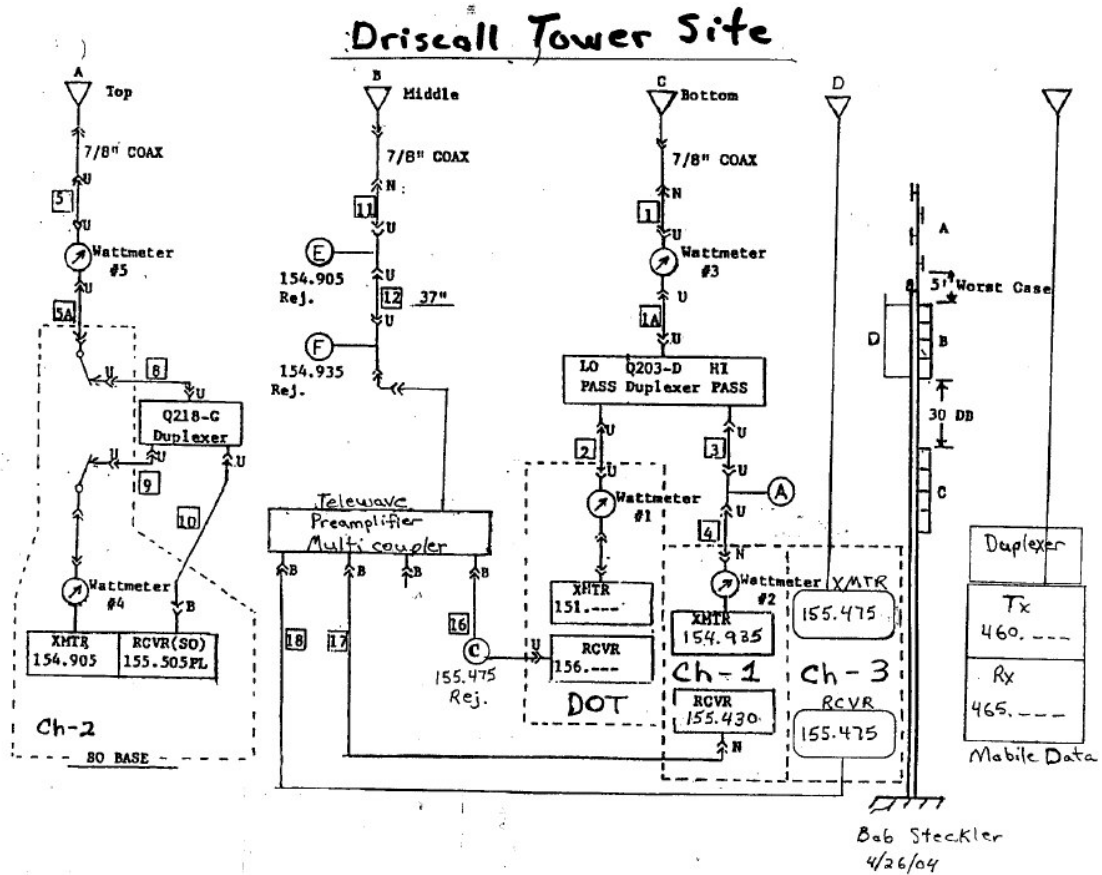
7.04 Contract Cost

Thirty Percent (30%) of the total possible evaluation points will be assigned to cost.

The cost amount used for evaluation may be affected by the application of North Dakota preference laws (N.D.C.C. § 44-08-01). The lowest cost proposal will receive the maximum number of points allocated to cost.

Exhibits

Update of Diagram 4-16 to reflect each site with is unique from the standard presented.



SITE	SITE NAME	HEIGHT IN FEET						WATTS AT ANTENNA PORT				
		TOWER	"A" ANTENNA	"B" ANTENNA	"C" ANTENNA	"D" ANTENNA	MOBILE DATA	CHANNEL 1	CHANNEL 2	CHANNEL 3	DOT	MOBILE DATA
1	ARNEGARD	200	220	195	155	NONE	NONE	100	100	100	100	X
2	BELCOURT	300	320	295	255	NONE	310	100	100	100	250	100
3	BISMARCK	249	269	279	279	NONE	269	100	100	100	100	100
4	BLAISDELL	300	320	295	255	NONE	310	100	100	100	100	100
5	BOTTINEAU	200	220	195	155	NONE	NONE	100	100	100	100	X
6	BOWMAN	300	320	295	255	NONE	NONE	100	100	100	250	X
7	CARRINGTON	200	220	195	155	NONE	NONE	100	100	100	100	X
8	CAYUGA	300	320	295	255	NONE	310	100	100	100	100	100
9	CLEVELAND	200	220	195	155	NONE	210	100	100	100	100	100
10	COLUMBUS	300	320	295	255	NONE	NONE	100	100	100	100	X
11	DENHOFF	200	220	195	155	NONE	NONE	100	100	100	250	X
12	DEVILS LAKE	300	320	295	255	NONE	310	100	100	100	100	100
13	DICKINSON	300	320	295	255	NONE	310	100	100	100	100	100
14	DOG DEN BUTTE	200	220	195	155	NONE	NONE	100	100	100	100	X
15	DRISCOLL	200	220	195	155	195	210	100	100	100	100	100
16	FARGO	400	420	420	380	NONE	420	100	100	100	100	100
17	FINLEY	200	220	195	155	NONE	NONE	100	100	100	100	X
18	FORTUNA	200	220	195	155	NONE	NONE	100	100	100	100	X
19	GRAND FORKS	300	320	295	255	NONE	310	100	100	100	100	100
20	HANNAFORD	200	220	NONE	NONE	NONE	NONE	X	X	X	100	X
21	HANNOVER	300	320	295	255	NONE	310	100	100	100	100	100
22	KILLDEER	200	220	195	155	NONE	NONE	100	100	100	250	X
23	LINTON	181	199	175	135	NONE	NONE	100	100	100	100	X
24	MAYVILLE	78	98	NONE	NONE	NONE	NONE	X	X	X	100	X
25	MERRICOURT	300	320	295	255	NONE	NONE	100	100	100	100	X
26	MILTON	300	320	295	255	NONE	310	100	100	100	250	100
27	MINOT	300	320	295	255	NONE	310	100	100	100	100	100
28	MOTT	200	220	195	155	NONE	NONE	100	100	100	250	X
29	NEW SALEM	200	220	195	155	NONE	NONE	100	100	100	100	X
30	PETERSBURG	200	220	195	155	NONE	NONE	100	100	100	100	X
31	RALEIGH	200	220	195	155	NONE	NONE	100	100	100	250	X
32	RYDER	300	320	295	255	NONE	NONE	100	100	100	100	X
33	SENTINEL BUTTE	200	220	195	155	NONE	NONE	100	100	100	250	X
34	TIOGA	300	320	295	255	NONE	NONE	100	100	100	100	X
35	TROTTERS CREEK	40	60	NONE	NONE	NONE	NONE	X	X	X	100	X
36	VALLEY CITY	300	320	295	255	NONE	310	100	100	100	100	100
37	WAHPETON	112	130	105	65	NONE	NONE	100	100	100	100	X
38	WILLISTON	300	320	295	255	NONE	310	100	100	100	100	100
39	WISHEK	300	320	295	255	NONE	NONE	100	100	100	100	X

Bismarck State Capitol Tower – Antenna positions. Note Antenna B has been move to 8 feet to the west.

